



# Math Teachers Press, Inc.

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## 2016 VIRGINIA MATHEMATICS STANDARDS OF LEARNING CORRELATED TO MOVING WITH MATH EXTENSIONS 2nd Edition Grade 7

		Lesson Plan/ Student Book	Skill Builders
<b>NUMBER AND NUMBER SENSE</b>			
<b>7.1</b>	The student will		
<b>a.</b>	investigate and describe the concept of negative exponents for powers of ten;		
<b>b.</b>	compare and order numbers greater than zero written in scientific notation;		
<b>c.</b>	compare and order rational numbers;	16, 25	11-3, 18-2, 48-2, 48-13
<b>d.</b>	determine square roots of perfect squares; and		
<b>e.</b>	identify and describe absolute value of rational numbers.		48-14
<b>COMPUTATION AND ESTIMATION</b>			
<b>7.2</b>	The student will solve practical problems involving operations with rational numbers.	17-23, 27-31, 62, 63, 66	12-1, 12-2, 12-3, 13-2, 13-3, 14-2, 14-3, 15-1, 15-2, 16-2, 17-1, 21-1, 21-2, 22-1, 22-2, 22-3, 26-5, 28-1, 28-2, 28-3, 43-3, 43-4
<b>7.3</b>	The student will solve single-step and multistep practical problems, using proportional reasoning.	36, 38, 40, 41	26-2, 26-4, 26-5, 28-2
<b>MEASUREMENT AND GEOMETRY</b>			
<b>7.4</b>	The student will		
<b>a.</b>	describe and determine the volume and surface area of rectangular prisms and cylinders; and	48, 49, 80	41-1, 41-2, 41-3, 53-1, 53-2
<b>b.</b>	solve problems, including practical problems, involving the volume and surface area of rectangular prisms and cylinders.	48, 80	41-1, 41-2, 53-1
<b>7.5</b>	The student will solve problems, including practical problems, involving the relationship between corresponding sides and corresponding angles of similar quadrilaterals and triangles.	81	46-2, 46-4
<b>7.6</b>	The student will		
<b>a.</b>	compare and contrast quadrilaterals based on their properties; and		
<b>b.</b>	determine unknown side lengths or angle measures of quadrilaterals.		
<b>7.7</b>	The student will apply translations and reflections of right triangles or rectangles in the coordinate plane.		49-2
<b>PROBABILITY AND STATISTICS</b>			
<b>7.8</b>	The student will		

		<b>Lesson Plan/ Student Book</b>	<b>Skill Builders</b>
<b>a.</b>	determine the theoretical and experimental probabilities of an event; and	39	47-5
<b>b.</b>	investigate and describe the difference between the experimental probability and theoretical probability of an event.	39	47-5
<b>7.9</b>	The student, given data in a practical situation, will		
<b>a.</b>	represent data in a histogram;	84	
<b>b.</b>	make observations and inferences about data represented in a histogram; and	84	
<b>c.</b>	compare histograms with the same data represented in stem-and-leaf plots, line plots, and circle graphs.		
<b>PATTERNS, FUNCTIONS, AND ALGEBRA</b>			
<b>7.10</b>	The student will		
<b>a.</b>	determine the slope, $m$ , as rate of change in a proportional relationship between two quantities and write an equation in the form $y = mx$ to represent the relationship;		
<b>b.</b>	graph a line representing a proportional relationship between two quantities given the slope and an ordered pair, or given the equation in $y = mx$ form, where $m$ represents the slope as rate of change;	73, 75	
<b>c.</b>	determine the $y$ -intercept, $b$ , in an additive relationship between two quantities and write an equation in the form $y = x + b$ to represent the relationship;		
<b>d.</b>	graph a line representing the additive relationship between two quantities given the $y$ -intercept and an ordered pair, or given the equation in the form $y = x + b$ where $b$ represents the $y$ -intercept; and		
<b>e.</b>	make connections between and among representations of a proportional or additive relationship between two quantities using verbal descriptions, tables, equations, and graphs.	73-76	52-1
<b>7.11</b>	The student will evaluate algebraic expressions for given replacement values of the variables.		
<b>7.12</b>	The student will solve two-step linear equations in one variable, including practical problems that require the solution of a two-step linear equation in one variable.	60	50-1
<b>7.13</b>	The student will solve one- and two-step inequalities in one variable, including practical problems, involving addition, subtraction, multiplication, and division, and graph the solution on a number line.	70-72	51-1, 51-2